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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,780	02/07/2002	Edmund Schuller	S&S-1102	3585

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EXAMINER

HURLEY, SHAUN R

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/071,780

Applicant(s)

SCHULLER ET AL.

Examiner

Shaun R Hurley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-41 and 61 is/are allowed.
- 6) ☒ Claim(s) 33-37, 42-55 and 57-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,8. 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 9, line 12, the shredding element is not shown as detailed 10. Either the number or the description is wrong. Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 202. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 68 is objected to because of the following informalities: there is an inadvertent dash at the end of the claim which Applicant should remove. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 33, 34, 43, 59, 60, 63, and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Eadie et al (4211583).

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Eadie teaches a method of producing an opening roller comprising preshaping a sawtooth-wire shredding element by means of a preshaping body into a shape essentially corresponding to a finished configuration assumed by the shredding element on its opening roller, hardening the shredding element while in its coiled shape, and using on an opening roller, as well as a further heat treating step (Abstract; Column 3, lines 1-5). Eadie also teaches the resultant opening roller.

6. Claims 33-36, 55, 59, 60, 63-65, and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Adkrom et al (4044427).

Adkrom teaches a method of producing an opening roller comprising preshaping a sawtooth-wire shredding element on a rubber shredding element carrier into a shape essentially corresponding to a finished configuration assumed by the shredding element on its opening roller, and hardening the shredding element while in its coiled shape upon the shredding element carrier (Abstract). Adkrom also teaches the resultant opening roller.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eadie in view of Hetzner (5861067).

Eadie essentially teaches the invention as discussed above, but fails to teach a protective gas, which Hetzner teaches as well known (Column 2, line 44). It would have been obvious to

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one of ordinary skill in the art, at the time the invention was made, to utilize an inert atmosphere as taught by Hetzner as well known in the process of Eadie, so as to prevent corrosion of the carbon steel. The ordinarily skilled artisan would know this and understand how to utilize such an atmosphere.

9. Claims 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eadie in view of Erikson et al (6117249).

Eadie essentially teaches the invention as discussed above, but fails to teach blasting with glass pellets, which Erikson teaches as well known (Column 2, lines 6-16). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize grit blasting as taught by Erikson in the process of Eadie, so as to provide a smoothed working product. The final opening roller of Eadie is to be used on fibers, and as such, the ordinarily skilled artisan would understand to grit blast it, so as to remove any imperfections before use. As such, Erikson teaches that grit blasting with glass pellets is a well known method of performing this removal. Likewise, a demagnetizing step would have to be performed since such blasting can cause magnetism to build up in the shredding element.

10. Claims 47-50 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eadie in view of Graf (6289588).

Eadie essentially teaches the invention as discussed above, but fails to teach chemical deburring and nickel plating, which Graf teaches as well known. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize chemical deburring as taught by Graf, so as to provide a smoothed working product (Column 3, line 45). The final opening roller of Eadie is to be used on fibers, and as such, the ordinarily skilled artisan would

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understand to debur it, so as to provide a smooth surface. Likewise nickel plating would provide a smooth and wear resistant surface, something Eadie would know and understand (Abstract).

11. Claims 49, 57, 58, 66, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eadie in view of Russo et al (5298095).

Eadie essentially teaches the invention as discussed above, but fails to teach plasma coating carbon steel with a titanium nitride coating, which Russo teaches (Abstract; Column 1, line 61). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a plasma coating of titanium nitride, so as to provide a wear resistant coating. Eadie is concerned with producing an opening roller which must withstand constant wear from fiber transfer and separation, and would know and understand to utilize such a well known coating.

12. Claims 37 and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eadie in view of Hollingsworth (5096506).

Eadie essentially teaches the invention as discussed above, but fails to teach grinding the teeth of the shredding element, which Hollingsworth teaches as well known (Column 7, lines 30-32). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to grind the teeth of Eadie, so as to provide a sharp working product. The final opening roller of Eadie is to be used on fibers, and as such, the ordinarily skilled artisan would understand to grind it, so as to provide a sharp surface so as to better catch the fibers individually.

Allowable Subject Matter

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13. Claims 38-41, 56, and 61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

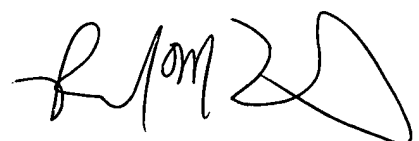
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fenical (5294270) teaches what is well known in the art.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaun R Hurley whose telephone number is (703) 605-1236. The examiner can normally be reached on Mon - Fri, 7:00am - 4:00pm, off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J Calvert can be reached on (703) 305-1025. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

SRH
30 September 2003

A handwritten signature in black ink, appearing to read 'R/M 20', with a large, stylized loop at the end.

Rodney M. Lindsey
Primary Examiner